

INL *Intelligence*

Volume 6, Issue 3 - March 24, 2006

A high-level monthly briefing on operations and activities at the U.S. Department of Energy's Idaho National Laboratory
Work at the lab advances the Department's strategic goals in the areas of energy, environment, defense and science.

■ Three Idaho High School Teams to Compete in National Science Bowl

Following three regional INL Scholastic Tournament competitions and the state finals, students from three Idaho high schools will soon be taking expense-paid trips to the nation's capital to compete in the National Science Bowl – the country's premier secondary school math and science competition. Teams from Timberline High School of Boise, Marsh Valley High School of Arimo and Riverstone School of Boise won their respective divisions – based on school enrollment – and now move on to the national contest that begins April 27. This year, 800 students from nearly 80 Idaho high schools competed in Scholastic Tournament events. The INL's regional and Department of Energy's national events encourage student involvement in math and science, improve awareness of career options in science and technology, and provide recognition for academic science achievement. 2006 marks the 16th year Idaho's national laboratory has conducted its Scholastic Tournament.

■ Lab Names New Nuclear Science and Engineering Director

Ronaldo Szilard has been named director of Nuclear Science and Engineering at Idaho National Laboratory. Szilard, who reports to Jim Lake, INL associate laboratory director for Nuclear Programs, has 15 years of private nuclear industry experience working for General Electric Nuclear Energy. His expertise includes program management in nuclear reload licensing, reactor core design and monitoring and nuclear methods development. The Nuclear Science and Engineering Program at INL has more than 100 scientists and staff who focus on coupling scientific research with test and simulation of engineering principles to help develop new reactor designs, such as those associated with the Generation IV Nuclear Energy Systems Initiative.

■ INL Honored with SCADA Leadership Award

Twenty-five INL researchers were honored with a SCADA Leadership Award at the recent Process Control and SCADA Summit sponsored by the SANS Institute. INL received the award for establishing and operating multiple, real-world infrastructure test beds that allow private utility vendors, asset owners and INL researchers to identify and fix vulnerabilities in supervisory control and data acquisition (SCADA) systems. These systems are the computer-based operating consoles that control power distribution and resources to the electric power grid, water treatment facilities and oil and gas refineries. Since 2002, INL has had a comprehensive initiative to develop solutions for securing the nation's critical infrastructures from physical and cyber threats.

■ Studies Explore Microbial Hydrogen Production

Researchers at INL are coupling their expertise in microbial metabolism and thermophiles (microorganisms that survive at high temperatures) to improve hydrogen production. They are studying a group of microorganisms that can convert carbon monoxide and water to carbon dioxide and clean hydrogen gas. As part of this research, they are working to understand and maintain bioreactors. Solving challenges associated with biological hydrogen production will lead to increased energy security, environmental improvements and accelerated adoption of a clean, renewable source of energy.

For more information, contact Lou Riepl at (208) 334-9574.

